

APPLICANT(S): MENCHIK, Guy et al.

SERIAL NO.: 10/534,615

FILED: December 14, 2005

Page 2

AMENDMENTS TO THE CLAIMS

Please add or amend the claims to read as follows, and cancel without prejudice or disclaimer to resubmission in a divisional or continuation application claims indicated as cancelled. The listing of the claims will replace all prior versions, and listing, of claims in the application.

Listing of claims:

- 1.-40. (Cancelled)
41. (Currently Amended) The system of claim 49 [[40]], wherein each of said sensors is associated with a respective one of said cartridge apparatuses.
42. (Currently Amended) The system of claim 49 [[40]], wherein the sensors are mass sensors.
43. (Currently Amended) The system of claim 49 [[40]], wherein said two or more cartridge apparatuses are arranged as part of a cartridge array.
44. (Currently Amended) The system of claim 49 [[40]], wherein said cartridge apparatuses comprise a cartridge casing, said casing including a memory device reader.
45. (Currently Amended) The system of claim 49 [[40]], wherein at least one of said cartridge apparatuses is coupled to a memory device to record data relating to building material in a cartridge.
46. (Currently Amended) The system of claim 49 [[40]], wherein at least one of said cartridge apparatuses comprises a bag to store said building material.
47. (Cancelled)
48. (Currently Amended) The system of claim 49 [[47]], wherein said valve matrix includes an outgoing tube for each type of building material required by said printing heads.

APPLICANT(S): MENCHIK, Guy et al.

SERIAL NO.: 10/534,615

FILED: December 14, 2005

Page 3

49. (Currently Amended) The A three-dimensional printing system of claim 47, to print a three-dimensional object, the system comprising:

one or more printing heads;

two or more replaceable cartridge apparatuses storing building materials in a closed container and connectable via tubes to the one or more printing heads, the cartridge apparatuses providing building materials to said one or more printing heads to print said three-dimensional object;

two or more sensors that determine the status of building materials in said cartridge apparatuses;

a controller that receives data from said sensors and controls switching of building material supply from one replaceable cartridge to another; and

a valve matrix coupled to said two or more cartridge apparatuses, to control supply of building materials from said cartridge apparatuses to said printing heads,

wherein upon lowering of the level of said building material in any one of said two or more cartridge apparatuses to a pre-determined amount, said valve matrix is adapted to automatically switch material sources.

50. (Currently Amended) The system of claim 49 [[40]], wherein said controller is to calculate material parameters from building materials in one or more of said cartridge apparatuses, based on data of building material in said cartridge apparatuses.

51. (Currently Amended) The system of claim 49 [[40]], further comprising a source of electromagnetic radiation.

52. (Previously presented) The system of claim 51, wherein the source of electromagnetic radiation is disposed within one of said cartridge apparatuses.

53. (Currently Amended) The system of claim 49 [[40]], further comprising a curing unit adapted to cure remnant building material within one of said cartridge apparatuses using electromagnetic radiation.

APPLICANT(S): MENCHIK, Guy et al.

SERIAL NO.: 10/534,615

FILED: December 14, 2005

Page 4

54. (Currently Amended) The system of claim 46, wherein said bag is inflatable and to enable curing of remnant building material.

55. – 64. (Cancelled)